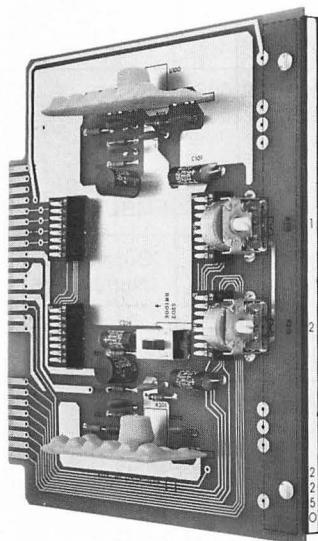
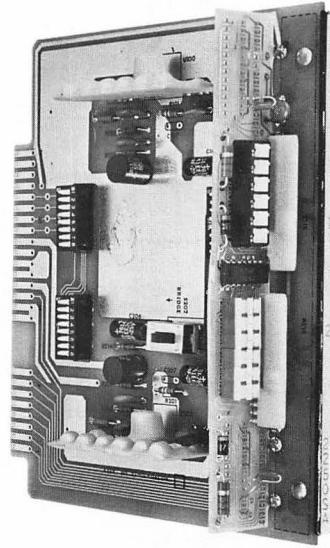


TECHNICAL  
INSTRUCTIONS

2250



2250SA

## SPECIFICATIONS, MODEL 2250/2250SA

|                            |   |
|----------------------------|---|
| Type                       | Driver Card with 2 drive amplifiers, input and output switch matrix and 2 attenuators.  |
| Driver Amplifiers          | X 57.3 ( $35.2 \pm .2$ dB voltage amplification) amplifiers designed specifically to drive the Model 2275 Power Amplifiers.   |
| Switches                   | DIP (dual inline package) SPST switches—8-switches per DIP; 2 input DIPS and 2 output DIPS.                                   |
| Matrix Switches:           |   |
| Bridging Switches:         | Slide-type switch to bridge the outputs of two Model 2275 Power Amplifiers for a 70-volt balanced output.                     |
| Performance Specifications | Included with Model 2275 Power Amplifier Specifications.  |
| Attenuators                |   |
| Model 2250:                | One 50K ohm audio taper potentiometer at the input of each driver amplifier; at least 60 dB attenuation at full CCW rotation. |
| Model 2250SA:              | One six-position DIP switch for each attenuator with sumable steps of 1-2-4-8-16-32 dB; maximum 63 dB attenuation.            |

## DESCRIPTION

The Model 2250 and 2250SA Driver Card Modules are plug-in components of the ALTEC Incremental Power System. The driver modules feed inputs to the power amplifier modules to achieve the desired combinations of output signals and output power. One or two driver modules may be inserted in the main frame of the Incremental Power System to process the inputs.

Each driver card module includes two driver amplifier circuits, an 8-channel input switching matrix, an 8-channel output switching matrix, a bridging switch, and two attenuators. Attenuators of the Model 2250 are continuously adjustable to a maximum attenuation of -60 dB. Attenuators of the Model 2250SA are adjustable in discrete increments of 1 dB, to a maximum attenuation of -63 dB.

## INSTALLATION, SETUP, OPERATION

Refer to Operating Instructions for Incremental Power System (42-02-045121).

*Specifications and components subject to change without notice. Overall performance will be maintained or improved.*

# PARTS LIST

## MAIN PCB ASSEMBLY

| Reference Designator | Ordering Number | Name and Description                                       | Reference Designator | Ordering Number | Name and Description   |
|----------------------|-----------------|--|----------------------|-----------------|--|
| — *                  | 27-01-045257-01 | Circuit Board, 2 Channel Step Attn.                        | R102,202             | 47-03-108443-01 | Res., $1.21\text{ k}\Omega \pm 1\%$ , $\frac{1}{4}\text{ W}$ |
| C101,201<br>206      | 15-01-045263-01 | Cap., $1\text{ mF}$ , $25\text{ V}$                        | R103,203,<br>214     | 47-03-109159-01 | Res., $68.1\text{ k}\Omega \pm 1\%$ , $\frac{1}{4}\text{ W}$ |
| C102,202             | 15-01-100233-01 | Cap., $50\text{ mF}$ , $15\text{ V}$                       | R115,215**           | 47-06-121822-01 | Pot., $50\text{ k}\Omega$ , audio taper                      |
| C103,203             | 15-02-100032-01 | Cap., $250\text{ pF} \pm 10\%$ , $500\text{ V}$            | S101,103,<br>201,203 | 51-02-121529-01 | Switch, SPST, 8-sect. mini rocker                            |
| C104,204             | 15-02-100007-01 | Cap., $3.3\text{ pF} \pm 10\%$                             | S202                 | 51-02-121952-02 | Switch, SPDT, slide  |
| C105,205             | 15-02-100010-01 | Cap., $10\text{ pF}$ , $500\text{ V}$                      | U100,200             | 17-01-121528-01 | Int. Ckt, op amp high voltage                                |
| C107,207**           | 15-02-100024-01 | Cap., $100\text{ pF} \pm 10\%$ , $500\text{ V}$            |                      |                 |  |
| R101,201             | 47-01-102185-01 | Res., $68\text{k}\Omega \pm 10\%$ , $\frac{1}{4}\text{ W}$ |                      |                 |  |

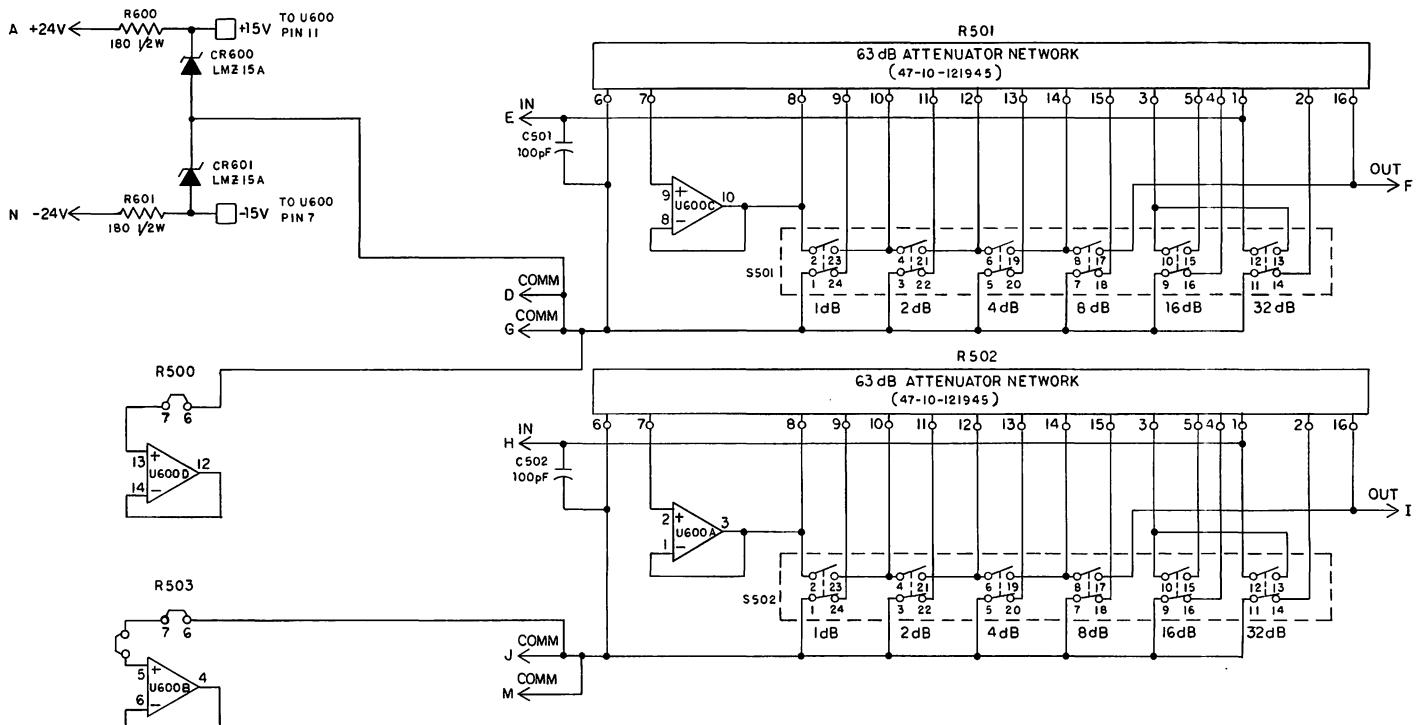
\*Model 2250SA only

\*\*Model 2250 only

## TWO-CHANNEL STEP ATTENUATOR ASSEMBLY\*

| Reference Designator | Ordering Number | Name and Description                                | Reference Designator | Ordering Number | Name and Description |
|----------------------|-----------------|---|----------------------|-----------------|----------------------|
| C501,502             | 15-02-100024-02 | Cap., $100\text{ pF} \pm 10\%$ , $500\text{ V}$     | U600                 | 17-01-121305-01 | Int. Ckt., op amp    |
| CR600,601            | 48-01-108576-02 | Diode, Zener, $15\text{ V} \pm 5\%$ , $2\text{ W}$  | S501,502             | 51-02-121946-01 | Switch, 6X SPDT      |
| R501,502             | 47-10-121945-01 | Network, $63\text{ dB}$ attenuation                 |                      |                 |                      |
| R600,601             | 47-01-102345-01 | Res., $180\Omega \pm 10\%$ , $\frac{1}{2}\text{ W}$ |                      |                 |                      |

\*Model 2250SA only



2. SEE ASSY 9C508  
I. OP AMPS. RC4136

NOTES: UNLESS OTHERWISE SPECIFIED

Figure 1. Schematic (9D509), 2-Channel Step Attenuator

| REVISIONS |      |     |                    | APPROVED |               |
|-----------|------|-----|--------------------|----------|---------------|
| ISSUE     | ZONE | ECO | DESCRIPTION        | BY       | DATE          |
| ①         |      |     | REL FOR PROTO      | L B      |               |
| ②         |      |     | REL FOR PRODUCTION |          | 5-178 PBL 2/2 |

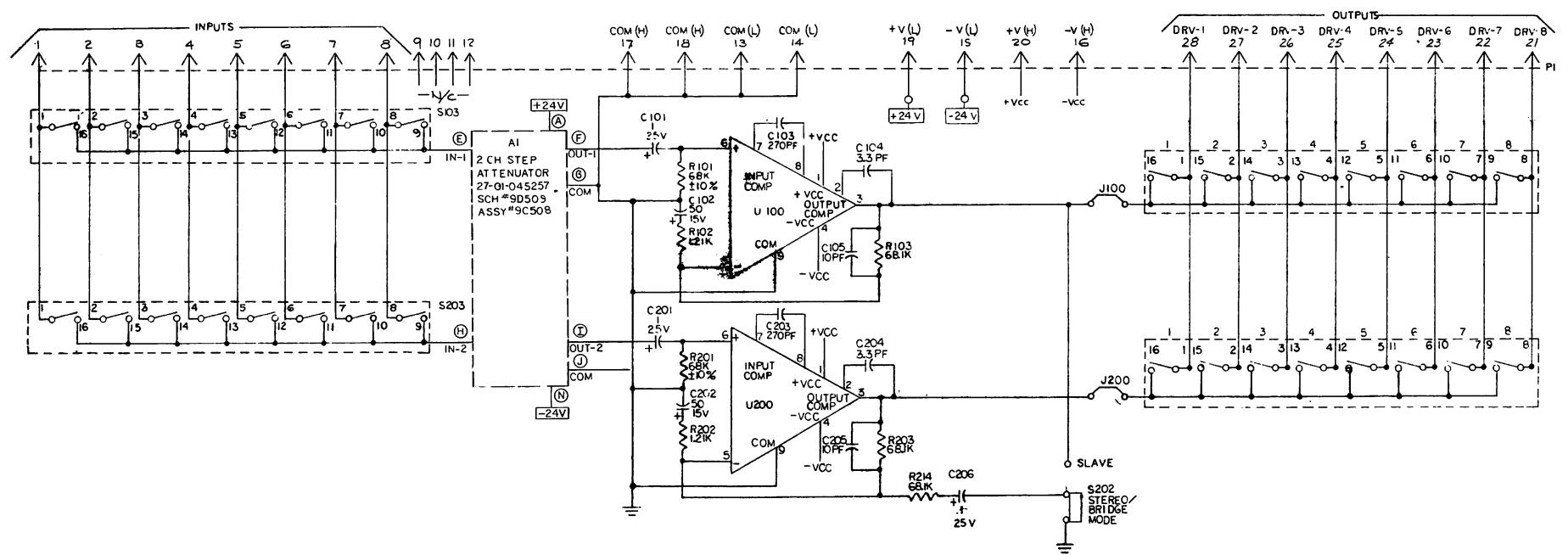


Figure 2. Schematic (9D484), Model 2250SA Driver Module

| REVISIONS |      |     |   | APPROVED |             |
|-----------|------|-----|---|----------|-------------|
| ISSUE     | ZONE | ECO | DESCRIPTION   | BY       | DATE        |
| F         |      |     | FTL FCT 1 FCTC  | J. S.    | 7-18-77     |
| F         |      |     | DELETE AT POINT C.4 R114 & C8.1H<br>R172, 251 & C102 STEREO BRIDGE MODE | FB       |             |
| G         |      |     | FOR CHANGE RECORD SEE REV F   | FB       | 10-3-77 JBR |
| 99        |      |     | REL FOR PILOT   | FB       | 10-2-77 JBR |
| 01        |      |     | REL FOR PRODUCTION  | FB       | 4-11-78 JBR |

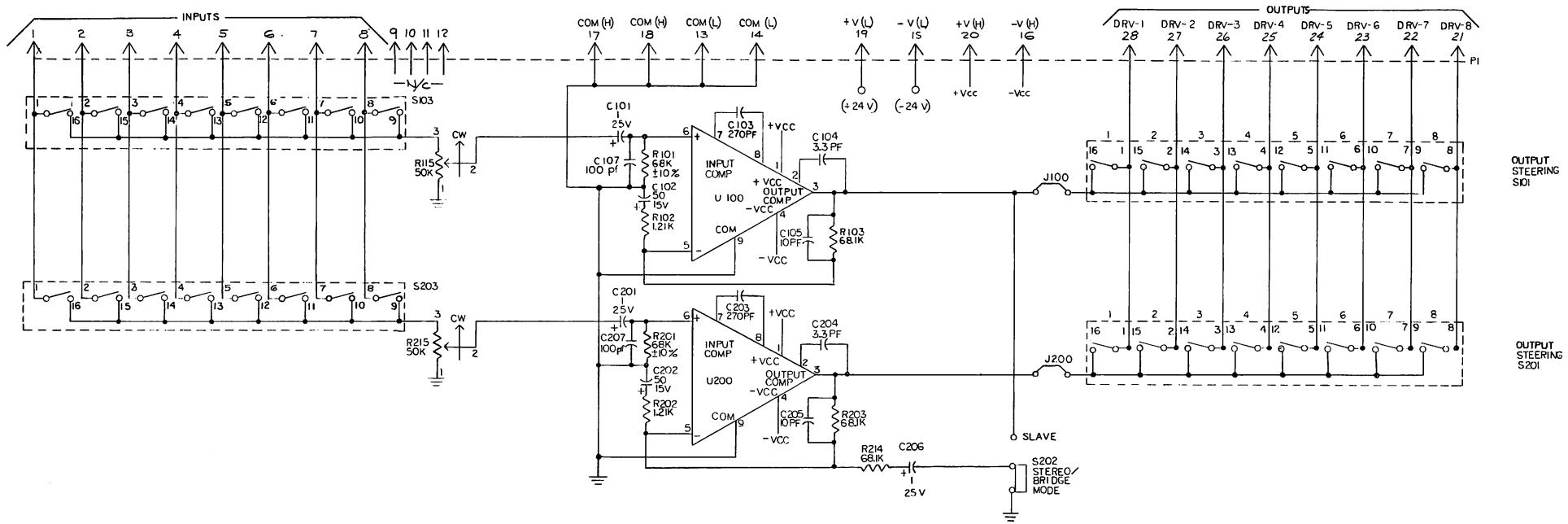


Figure 3. Schematic (9D135), Model 2250 Driver Module